

The highest temperature recorded was 108° at Healdsburg on the 31st. This was 4° higher than the highest recorded during May, 1911, but 13° lower than the temperature recorded at a number of stations in California during May, 1910. The lowest temperature was 8° at Tamarack on the 7th, or 3° lower than the lowest temperature during May, 1911, which occurred at the same place.

PRECIPITATION.

While the precipitation for the season has been much below the normal, the precipitation for the month of May was about 60 per cent greater than the normal. It was much greater than that of May, 1911, 1910, and 1909, and slightly greater than that of 1908.

The following table gives the average and departure from the normal for each May from 1897 to 1912, inclusive:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	Inches.	Inches.		Inches.	Inches.
1897.....	0.18	-1.04	1905.....	2.18	+0.96
1898.....	1.56	+0.34	1906.....	3.19	+1.97
1899.....	0.73	-0.49	1907.....	0.57	-0.65
1900.....	1.39	+0.17	1908.....	1.63	+0.41
1901.....	1.03	-0.19	1909.....	0.23	-0.99
1902.....	0.84	-0.38	1910.....	0.18	-1.04
1903.....	0.14	-1.08	1911.....	0.72	-0.50
1904.....	0.22	-1.00	1912.....	1.92	+0.70

The greatest monthly rainfall was 7.01 inches at For dyce Dam, and there was no rainfall at five stations. The greatest 24-hour rainfall was 3.27 inches at Weitchpec, Humboldt County.

Snowfall.—May was a month of light snowfall. The outlook for water was only fair at the beginning of the month, but was somewhat improved by the rains and light snow. At Blue Canyon and other points in the Sierra below 5,000 feet elevation 4 to 6 inches of moist snow fell on May 22.

Summit.—The following table shows the depth of snow on the ground at Summit on given dates in May during the period 1907 to 1912:

	May 1.	May 15.	May 31.
	Inches.	Inches.	Inches.
1907.....	115	121	71
1908.....	20	42	16
1909.....	119	66	33
1910.....	13	12	3
1911.....	94	65	37
1912.....	36	13	6

SUNSHINE.

The following table gives the hours of sunshine and percentages of the possible:

Station.	Hours.	Percent- age of possible.	Station.	Hours.	Percent- age of possible.
Eureka.....	185	41	Sacramento.....	273	61
Fresno.....	374	85	San Diego.....	225	52
Los Angeles.....	289	67	San Francisco.....	310	70
Mount Tamalpais.....	275	62	San Jose.....	346	79
Red Bluff.....	320	72	San Luis Obispo.....	234	54

A peculiar feature of the sunshine during May, 1912, was the comparatively small amount at Mount Tamalpais. Usually during the month of May the sunshine exceeds 70 per cent of the possible. This May the sunshine was

only 62 per cent, while at San Francisco, where the sunshine is usually below 60 per cent, this May reached 70 per cent. There was less sunshine in the valleys than usual.

NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING MAY, 1912.

By N. R. Taylor, Local Forecaster.

Sacramento watershed.—While the rivers of this watershed were below the May normal generally they averaged from 1 foot to nearly 4 feet above that of April, and were higher than during any of the preceding 11 months, a condition that has probably never before occurred in the Sacramento Valley.

A slight swell, which was a continuation of the rise that was in progress during the last days in April, occurred in the Sacramento River during the first few days of May, and another rise occurred during the last decade of the month which culminated, at most points, in the highest stages of the month. At Sacramento city the highest stage, 16.7 feet, on the 30th and 31st, is the highest at this point for the season of 1911-12.

In the Feather-Yuba and American River watersheds there were no rises much in excess of 1 foot, and all streams averaged much below the usual stages for the month.

There was little departure from the usual May rainfall in the floor of the valley. The snowfall in the mountains was below that which usually falls, and the accumulated amounts of snow in the high Sierras dwindled rapidly during the last days of the month, but at no time were the effects of snow water noticeable in any of the main streams of the Sacramento drainage basin.

Lower San Joaquin watershed.—The rivers of this watershed, like those of the Sacramento, were much higher than during the preceding month. They were, however, below the May normal, especially the San Joaquin itself, below the mouth of the Stanislaus. There was a general rise in progress during the last few days of the month, due to melting snows in the southern Sierras.

NOTES ON THE STREAMS OF THE UPPER SAN JOAQUIN WATERSHED.

By W. E. Bonnett, Local Forecaster.

With the coming of the warmer weather of May, the streams of this district rose considerably, but there was nowhere any approach to flood conditions. The average monthly stages in the Merced at Merced Falls and in the San Joaquin at Friant were very slightly higher than the average stages for May, 1908, which were the lowest for the six years' record for this month. In the Kings at Piedra and in the San Joaquin at Firebaugh, the average stages were even lower than those of May, 1908.

The month closed with some very warm days, and the highest stages at all points were reached on the 30th or 31st, but the fall that has taken place during the first week of June coincident with some very warm weather would indicate that the highest stages for this season have already been reached and that the summer decline has begun.

In the season of 1907-8, which was a dry one followed by very low summer water in the streams, the snowfall occurred mainly during the midwinter months, and probably was of such a character as to yield a better sustained flow than is to be hoped for this year. Furthermore, May, 1908, was a very cool month, and this had its effect in retarding the melting of mountain snows and making